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The validity and reliability of an instrument to assess nursing competencies in spiritual care

René van Leeuwen, Lucas J Tiesinga, Berrie Middel, Doeke Post and Henk Jochemsen

Aim. This study contributes to the development of a valid and reliable instrument, the spiritual care competence scale, as an instrument to assess nurses' competencies in providing spiritual care.

Background. Measuring these competencies and their development is important and the construction of a reliable and valid instrument is recommended in the literature.

Design. Survey.

Method. The participants were students from Bachelor-level nursing schools in the Netherlands ($n = 197$) participating in a cross-sectional study. The items in the instrument were hypothesised from a competency profile regarding spiritual care. Construct validity was evaluated by factor analysis and internal consistency was estimated with Cronbach's alpha and the average inter-item correlation. In addition, the test-retest reliability of the instrument was determined at a two-week interval between baseline and follow-up ($n = 109$).

Results. The spiritual care competence scale comprises six spiritual-care-related nursing competencies. These domains were labelled:

- 1 assessment and implementation of spiritual care (Cronbach's α 0.82)
- 2 professionalisation and improving the quality of spiritual care (Cronbach's α 0.82)
- 3 personal support and patient counseling (Cronbach's α 0.81)
- 4 referral to professionals (Cronbach's α 0.79)
- 5 attitude towards the patient's spirituality (Cronbach's α 0.56)
- 6 communication (Cronbach's α 0.71). These subscales showed good homogeneity with average inter-item correlations > 0.25 and a good test-retest reliability.

Conclusion. This study conducted in a nursing-student population demonstrated valid and reliable scales for measuring spiritual care competencies. The psychometric quality of the instrument proved satisfactory. This study does have some methodological limitations that should be taken into account in any further development of the spiritual care competence scale.

Relevance to clinical practice. The spiritual care competence scale can be used to assess the areas in which nurses need to receive training in spiritual care and can be used to assess whether nurses have developed competencies in providing spiritual care.

Key words: assessment, care, competencies, nurses, nursing, spirituality

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Introduction

The development of assessment instruments regarding spirituality and spiritual care has been the subject of some attention in the healthcare literature. Koenig (2001) provided an overview of the existing instruments. Draper and McSherry (2002) emphasised the subjectivity of both spirituality and spiritual care. In their opinion, this made the development of instruments for assessment of both phenomena difficult. They argued that there was no evidence that people shared a common understanding of the existence of a spiritual realm or of its meaning. Swinton and Narayanasamy (2002) argued that instruments to assess dimensions of spirituality were designed to orientate health professionals towards the possibility that this dimension might be significant for the patient's current experience and to offer guidelines on how best to care for the individual. They argued that the success of spiritual assessment depended on the sensitivity and empathy of the nurse. These instruments were intended to help healthcare professionals to become more aware of and sensitive to the spirituality of their patient and to help them to identify the latent spiritual needs of patients. This opinion supports the objective of our study, which is to describe the first step in the validation process of an instrument for assessing nursing competencies in spiritual care.

In the nursing literature, the need to educate nursing students in spiritual care and the assessment of the impact of such education is widely recognised (Highfield & Amenta 2000, Stranahan 2001, Strang *et al.* 2002, Ross 2006, van Leeuwen *et al.* 2006). With regard to competencies related to spiritual care in the field of nursing, there is a call for the testing of already existing competency profiles and relevant frameworks to determine to what extent they contribute to caregivers' ability to provide spiritual care (McSherry 2006, Ross 2006).

This study will describe the first step in the validation process for assessing nurses' competencies when it comes to providing spiritual care. Spiritual care in nursing is defined as the care nurses deliver relative to the religious and existential needs of patients, including their questions and experiences of meaning and purpose (Jochemsen *et al.* 2002). McSherry *et al.* (2001) stated that spirituality and spiritual care were two separate concepts addressing specific dimensions of care: the first theoretically focussed, the second practice-based. Spiritual competencies in spiritual care refer to a complex set of skills employed in a professional context, that is, in the clinical nursing process. A competency integrates the cognitive, affective and psychomotor domains of nursing practice (Meretoja *et al.* 2004). Various authors describe the nature and content of nursing competencies for spiritual care (van Leeuwen & Cusveller 2004, Baldacchino 2006).

Several studies have described the use of an assessment instrument for spiritual care for educational purposes (Table 1). On the one hand, some instruments include aspects that do not seem relevant in relation to the assessment of a set of competencies, such as the frequency of the spiritual care given, the content of the training program and items evaluating the program's adequacy (Highfield *et al.* 2002, Meyer 2003). On the other hand, there are items concerning the opinions or attitudes of health professionals toward spirituality and spiritual care (Meyer 2003) and these elements can be seen as relevant aspects of spiritual care competencies. Wasner *et al.* (2005) mention factors that may influence the provision of spiritual care itself, such as the burden of the disease on the patient or the level of fear of death, the extent to which patients have adapted their lives to the disease and the nurse's compassion for the patient. The origin of these instruments remains unclear and their psychometric properties are obscure. These instruments have two weaknesses: (i) questionnaire items are treated as single indicators of competencies in spiritual care and have as such a low reliability, (ii) multi-item instruments have no clear domains of spiritual care as they were not analysed with exploratory factor analysis to detect underlying dimensions of spiritual care and neither was internal consistency (reliability) estimated nor were other psychometric parameters evaluated. Although Meyer (2003) gives a reliability coefficient of 0.84 for her nine-item scale, the absence of other indices, such as construct validity, inter-observer reliability or criterion validity, raise questions about the psychometric quality of these instruments. In all the above-mentioned studies the students' attitudes toward spirituality were assessed on the assumption that this might also serve as a predictor of their capacity to provide spiritual care. To predict student spirituality the following instruments were used in the above-mentioned studies: IIR, Idler Index of Religiosity (Idler 1987), spirituality assessment scale (SAS) (Howden 1992), the functional assessment of chronic illness-spiritual well-being scale (FACIT-Sp) (Cella 1997, Peterman *et al.* 2002), and self transcendence scale (STS) (Reed 1991). McSherry *et al.* (2002) developed the spirituality and spiritual care rating scale (SSCRS). The SSCRS assesses opinions about aspects of spiritual care, specifically nurses' perceptions regarding spirituality and spiritual care (Ross 2006). In a certain way it does give an indication of a nurse's understanding of spiritual care, it is not, however, an instrument that assesses competencies for providing spiritual care. Lovanio and Wallace (2007) used the SSCRS to assess students' knowledge and understanding of spirituality and spiritual care.

Table 1 Instruments used in studies to assess the effects of education in spiritual care

Author(s), year of publication, country	Instrument and items	Scale
Highfield <i>et al.</i> (2000) USA	Spiritual Care Perspective Scale (SCPS) <ul style="list-style-type: none"> • Frequency of providing spiritual care • Ability to provide spiritual care • Comfort level while providing spiritual care • Training/education in spiritual care (checklist) • Adequacy of training • Influence of people living with cancer/terminal illness on spirituality 	Rating 1–5 1 = rarely or never 5 = every day (except item 4)
Meyer (2003) USA	Student Survey of Spiritual Care (SSSC) <ul style="list-style-type: none"> • Spiritual care is an essential component of holistic nursing care • Spiritual well-being is an important part of health promotion • I have sufficient knowledge to conduct a spiritual assessment • I am able to identify spiritual distress • I am not interested in the topic of spirituality • I feel adequately prepared to provide spiritual care • I respond to spiritual distress by listening and being concerned • I feel spirituality is a personal matter that should not be discussed with the patient • I respond to spiritual distress by asking the patient and/or his or her family whether they have any special practices they use to express their spirituality 	Rating 1–6 1 = strongly disagree 6 = strongly agree
Wasner <i>et al.</i> (2005) Germany	Changes in attitudes towards working palliative care <ul style="list-style-type: none"> • Quality of life • Compassion for the dying • Compassion for oneself • Attitude towards one's family • Fear of dying • Fear of death • Satisfaction with work • Work meaningful • Attitude toward colleagues • Work-related stress 	Rating 0–10 0 = not at all 10 = very much

This study will focus on designing and testing a new instrument's psychometric aspects aimed at assessing spiritual care competencies in nursing students. The instrument developed for this purpose was based on the nursing competency profile for spiritual care that was previously described by van Leeuwen and Cusveller (2004). This profile is based on an extensive review of the international literature from different professional perspectives, especially from the perspective of nursing and chaplaincy. In this competency profile van Leeuwen and Cusveller (2004) distinguished the following three domains of spiritual care and six sub-domains of nursing competencies:

Domain 1: Awareness and self-handling

Competency 1

- Nurses handle their own values, convictions and feelings in their professional relationships with patients of different beliefs and religions.

Competency 2

- The nurse addresses the subject of spirituality with patients from different cultures in a caring manner.

Domain 2: Spiritual dimensions of nursing

Competency 3

- The nurse collects information about the patient spirituality and identifies patient needs.

Competency 4

- The nurse discusses with patients and team members how spiritual care is provided, planned and reported.

Competency 5

- The nurse provides spiritual care and evaluates it with the patient and team members.

Domain 3: Assurance of quality and expertise

Competency 6

- The nurse contributes to quality assurance and improving expertise in spiritual care within the organisation.

Based on the literature the authors developed key focus points of nursing behaviour for each competency. They emphasised that their competency profile resembled elements of well-grounded studies (McSherry 2000, Narayanasamy 2001, Taylor 2002).

In a study among Maltese nurses, Baldacchino (2006) confirmed the competencies regarding the first two domains, but the domain of the assurance of quality and expertise was not recognised. The competency profile developed by van Leeuwen and Cusveller (2004) was used for the generation of items for the instrument that was developed in this study.

The objective of this study is to develop and test the structure of the spiritual care competence scale (SCCS) and to evaluate the construct validity and reliability of this new instrument among nursing students. The following research questions have been addressed:

- 1 Which items are representative for the domains of nurses' spiritual care competencies that are hypothesised by van Leeuwen and Cusveller (2004) and do these items comprise scales?
- 2 What is the internal consistency of these scales?
- 3 What is the test-retest reliability of the instrument?

Method

Design

First, for the psychometric analysis of the instrument a cross-sectional study was designed. Second, for the test-retest analysis a second (independent) sample from the same student population was used in an observational longitudinal study. Third, after the psychometric analysis additional interviews were performed among a random sample of eight students to explore some specific items in the instrument.

Subjects

Respondents were recruited from among third-year and fourth-year nursing students in two Bachelor's level nursing schools ($n = 197$). For the test-retest procedure a second sample of students was selected to participate in this part of the study ($n = 109$).

Measures

The original instrument was comprised of 35 questions concerning spiritual care competencies derived from the key points of nursing behaviour described in the nursing competency profile as developed by van Leeuwen and Cusveller (2004). Students were asked to indicate on a five-point Likert

scale how they estimated their own level of competency in spiritual care. For example, 'I can help a patient continue his or her daily spiritual practices (including providing opportunities for rituals, prayer, meditation, reading the Bible/Koran, listening to music)', or 'I know when I should consult a spiritual advisor concerning a patient's spiritual care', with the response options 1 = strongly disagree – 5 = strongly agree.

Procedure

Data were collected in January 2006. Respondents completed the questionnaire independently, in their classrooms under the guidance of field workers.

Item analyses

Items belonging to the six hypothesised dimensions of competencies with respect to spiritual care were explored with principal component analysis (PCA) with Varimax rotation. A scree plot (graph-plotting of each factor showing the relative importance of each factor) indicated six dimensions. Items were selected according to the following criteria:

- 1 A factor loading > 0.50 on the hypothesised component (factor) and < 0.30 on the other component were both set as evidence.
- 2 Items with dual factor loadings > 0.40 were eliminated from the factor analysis. Thus, where an item loaded inconsistently on more than one factor, this was considered to be a violation of the assumption that the item should contribute exclusively to the hypothetical factor or construct.

Reliability was examined with the Cronbach's alpha internal consistency coefficient for each dimension of the scale. A Cronbach's alpha ≥ 0.70 was considered sufficient (Streiner & Norman 2003). However, since the alpha coefficient is dependent on the number of items in the scale, a high internal consistency reliability estimate can be obtained either by having many items or highly intercorrelated items or a combination of the two (Clark & Watson 1995). Thus, Cronbach's alpha is essentially a function of two parameters: the number of scale items and the mean inter-item correlation (MIIC) (Cortina 1993). Whereas the degree of item intercorrelation is a straightforward indicator of internal consistency, the number of items is not meaningfully related to the internal consistency of a construct. According to the guideline produced by Briggs and Cheek (1986), the MIIC should fall within an optimal range of between 0.20–0.50, but should not be less than 0.15 (Clark & Watson 1995, Taylor *et al.* 2003). Therefore, taking the upper value of the range $MIIC \geq 0.25$ seems reasonable. In estimating the internal validity of the scales, the following criteria were used:

- 1 A Cronbach's alpha coefficient between ≥ 0.70 (Nunnally & Bernstein 1994) and ≤ 0.90 (Streiner & Norman 2003) was considered an indicator of a reliable scale.
- 2 MIIC ≥ 0.25 was considered as being a sufficient level of internal consistency or reliability. Scales with a lower mean inter-item correlation were removed.

To determine the instrument's stability, the test-retest reliability was determined by means of a *t*-test and the effect-size statistic.

Statistical analysis

Discrete variables were compared using the chi-square test (Fisher's exact test when appropriate) and the difference of proportions test (Newcombe & Altman 2005) and they are presented as numbers and percentages. Continuous variables were normally distributed (Shapiro Wilk, $p > 0.05$) and were therefore compared with the Student *t*-test and are presented as means \pm SD. To estimate the magnitude of change between baseline and retest, we used the ES statistic using the method of the standardised response mean (SRM), calculated as the mean change in score divided by the standard deviation (SD) of change in scores and representing individual change in terms of the number of SD of that change.

Effect sizes (ES) were calculated only after rejecting the null hypothesis that a difference in attitude between baseline and re-test occurred through random variation, since changes over time that are due to sample fluctuation have no relevance. According to Cohen's thresholds, an ES of < 0.20 indicates a trivial difference between baseline and re-test, an ES of ≥ 0.20 to < 0.50 a small difference, an ES of ≥ 0.50 to < 0.80 a moderate difference and an ES ≥ 0.80 a substantial difference (Cohen 1988). All statistical tests were two-tailed. A value of $p < 0.05$ was used for all tests to indicate statistical significance. All statistical analyses were performed using SPSS 13.0.1 for Windows.

Interviews

After completing the psychometric testing of the instrument, it was decided to conduct interviews to explore the students' answers to the questions about the subscale of the instrument 'Attitude towards patient spirituality'. The psychometric results of this subscale were satisfactory, but obtaining more insight into how the students assessed themselves might add to the validity and reliability of this subscale. A random sample of those students were interviewed ($n = 8$). The students were asked what interpretation they had given to the items related to this subscale.

The interviews were audiotaped and transcribed. The transcripts were summarised. Member checking was performed asking respondents whether the summary gave a correct image of the interview. Only when the summary gave an incorrect image of the interview were changes in the text made. Conclusions about the interview were drawn by one researcher. Peer debriefing was conducted by discussing the summaries and the conclusions in the research group that performed this study (Lincoln & Guba 1985).

Ethical issues

Approval by an ethics committee was not necessary. The intervention formed part of the curriculum and student participation in the research was neither burdensome nor risky. The directors of the nursing schools consented in writing to this research. The students received written information about the research and were asked to participate voluntarily. They were told they could withdraw from the research at any time in the process.

Students who participated in the interviews were informed in advance about the content of the interviews and assured that their information would be analysed confidentially and anonymously. They were free to withdraw from interviews at any moment.

Translation procedure

The translation into English of the 27 Dutch items in the final questionnaire was carried out by forward-backward translation (Jones 2001), performed by qualified native-speaker translators from the University of Groningen Language Centre. The items were translated in such a way as to leave no meaningful semantic differences between the Dutch and English versions, though a few items required discussion between the researchers and the translators to clarify minor differences. Some item descriptions were modified to provide a greater degree of congruity among those items belonging to the same domain. The term 'department' was replaced by 'ward,' as a word more familiar to nurses. The term 'intervention' was replaced by 'peer discussions' as a more commonly used word for collegial discussions. The final English version of the questionnaire is included in the Appendix.

Results

All of the questionnaires returned ($n = 197$) were deemed suitable for this study. The mean age of the respondents was 20 (SD 1.3, minimum 18, maximum 30). The sample used for

the test–retest procedure ($n = 109$) consisted of respondents with a mean age of 19 (SD 1.2, minimum 17, maximum 23).

Six spiritual care competency dimensions were derived from the explorative factor analysis. These six dimensions explain 53% of the total variance. They were identified in terms of the following labels: assessment and implementation of spiritual care, professionalisation and improving the quality of spiritual care, personal support and counseling of patients, referral to professionals, attitude towards patient spirituality and communication. Eight items were excluded from the construction of the scale because of insufficient or dual factor loadings. Thus, out of the original 35 items, 27 were included in the final version of the instrument. Table 2 shows the six dimensions (subscales) with their respective related items, the factor loading per item, Cronbach's

alpha and the mean inter-item correlation (MIIC) of each dimension.

The 'assessment and implementation of spiritual care' dimension refers to the ability to determine a patient's spiritual needs and/or problems and to the planning of spiritual care. This includes written intra- and inter professional communication of spiritual needs and spiritual care. The 'professionalisation and improving the quality of spiritual care' dimension includes those activities of the nurse aimed at quality assurance and policy development in the area of spiritual care. It refers to those contributions to the institutional level that transcend the primary process of care and by means of which the nurse also contributes to the promotion of professional practice. The 'personal support and patient counseling' dimension was seen as the heart of

Table 2 Principal component analysis of nursing competencies for spiritual care

Dimensions and items	CA	α	MIIC
Assessment and implementation of spiritual care		0.82	0.44
Oral nursing reports on the spiritual functioning of the patient	0.82		
Written nursing reports on the spiritual functioning of the patient	0.78		
Documenting the nurse's contribution to spiritual care in the patient's care plan	0.68		
Coordinating spiritual care in multidisciplinary consultation	0.57		
Coordinating spiritual care in dialogue with the patient	0.55		
Oral and written reporting of the spiritual needs of the patient	0.52		
Professionalisation and improving the quality of spiritual care		0.82	0.43
Policy recommendations to management regarding spiritual care	0.80		
Contributing to professionalism and expertise in spiritual care	0.70		
Coaching healthcare workers in providing spiritual care	0.70		
Implementing quality improvement projects in spiritual care	0.63		
Contributing to quality of care regarding spiritual care	0.62		
Addressing work-related problems in relation to spiritual care	0.55		
Personal support and patient counselling		0.81	0.41
Helping the patient to continue his or her daily spiritual customs and rituals	0.72		
Providing spiritual care to the patient	0.71		
Providing information to the patient regarding facilities for spirituality and spiritual care in the healthcare institution	0.69		
Addressing questions regarding spirituality to the patient's relatives	0.68		
Attending to the patient's spirituality during daily care	0.68		
Evaluating spiritual care with the patient and the team	0.58		
Referral to professionals		0.79	0.56
Referring the patient with spiritual needs adequately to another healthcare worker	0.80		
Assigning spiritual care adequately	0.64		
Knowing when to consult the chaplaincy	0.61		
Attitude towards patient spirituality		0.56	0.25
Being open to (other) spiritual beliefs in patients	0.70		
Not forcing personal spirituality upon patients	0.64		
Showing respect for the patient's spiritual beliefs	0.61		
Recognising personal limitations in spiritual care	0.50		
Communication		0.71	0.60
Listening actively to the patient's 'life story'	0.80		
Showing an accepting attitude toward the patient's spirituality	0.74		

CA, Cronbach's alpha; MIIC, mean inter-item correlation.

spiritual care, with items operationalised in terms of interventions. They indicate the actual provision and evaluation of spiritual care vis-à-vis patients and their relatives. 'Referral to professionals' is the dimension relating to cooperation with the other disciplines in healthcare that are responsible for spiritual care among which the chaplaincy is mentioned explicitly as a core discipline. Personal factors relevant to providing spiritual care were assigned to the 'attitude towards patient spirituality' dimension. This dimension revealed a poor Cronbach's alpha, but the inter-item correlation indicates a homogeneous scale (Table 2). Lastly, contact and communication between nurse and patient are essential aspects of spiritual care. This surfaced as a separate dimension in the factor analysis and was designated as the 'communication' dimension. Eight items did not correlate with the underlying hypothesised construct and were removed from the original list of 35 items.

The principal component analysis with Varimax rotation provided evidence of the multidimensionality of the SCCS. The Pearson correlation coefficients (r) between components were calculated using summated respondent scores on the individual scale components. The proportion of linearly explained variance (r^2) between components was estimated by squaring r (Table 3). Although only the associations between communication, referral and caring were trivial due to random error, the other ten statistically significant correlations were appraised as weak. However, the associations between professionalisation, assessment and referral were appraised as substantial (with proportions of explained variance >0.20) indicating that nurses who regarded spiritual care as a significant part of care delivery and health policy were more likely to evaluate, implement and refer spiritual care to those with more expertise in this field. A similar result was found when appraising the association between the attitude towards assessment, evaluation and referral to more skilled professionals, indicating that those who tended to assess and report a patient's spiritual needs and implement spiritual care in the organisation were more likely to refer patients with spiritual needs to professionals with professional religious or spiritual expertise.

Test-retest reliability of the SCCS

The test-retest procedure (Table 4) revealed a statistically significant difference between test at baseline and retest for the 'professionalisation and improving the quality of spiritual care' subscale. However, the importance of these changes over time was found to be trivial according to the Cohen (1988) thresholds ($ES \leq 0.20$).

Interviews

The results of additional the interviews showed that students had different interpretations of the items according to their 'attitude towards patient spirituality'. Some interpreted them mainly from their own, usually religious, frames of reference and asked themselves to what extent they would be able and prepared to interact in the support of patients of other faiths or convictions, such as Muslims. Other students approached the items from a wider perspective than merely their own convictions and asked themselves what could be expected from a nurse in a professional sense. Some students made an immediate connection with one or more specific themes within the realm of spiritual care, such as praying with a patient, euthanasia or interacting with other faiths. Others wrestled with the fact that they wanted to see how their own faith might influence the relationship with the patient. From this perspective, for instance, they had difficulties with the 'not forcing one's own religion or faith upon another' item. They thought this item had been formulated with a negative connotation and they admitted that they had given a socially acceptable answer. Lastly, students indicated how certain items, such as showing respect, being open or not imposing their own faith, seemed to overlap and so tended to give them the same scores.

Other factors that were mentioned and that may have influenced scores for those items related to the availability of clinical experience. Recent experience in nursing practice was relevant to the scores on the scale. Students with such experience tended to score themselves lower in the interview than they did previously when completing the questionnaire.

Table 3 Scale components correlations (r) and linearly explained variance (r^2) between components

	Assessment	Professionalisation	Personal support	Referral	Communication	Attitude
I Assessment		0.51 (.26)	0.39 (.15)	0.48 (.23)	0.16 (.02)	0.21 (.04)
II Professionalisation			0.43 (.18)	0.47 (.22)	0.20 (.04)	0.14 (.02)
III Personal support				0.40 (.16)	0.12 (.01)	0.17 (.03)
IV Referral					0.11 (.01)	0.21 (.04)
V Communication						0.30 (.09)
VI Attitude						

Table 4 Test–retest reliability analysis at two week time intervals

	Baseline mean (SD)	Follow-up mean (SD)	<i>p</i> -value	Effect size	95% CI (ES)
Assessment and implementation of spiritual care	19.95 (3.19)	19.77 (2.94)	0.53	ns	
Professionalisation and improving quality of care	16.24 (3.54)	16.89 (3.64)	0.03	0.18	–0.09 (0.45)
Personal support and counselling of patients	19.40 (2.84)	19.63 (2.78)	0.37	ns	
Referral to professionals	9.38 (1.87)	9.39 (1.72)	0.95	ns	
Attitude towards patients spirituality	15.25 (1.65)	15.20 (1.78)	0.83	ns	
Communication	8.02 (0.95)	7.88 (0.92)	0.16	ns	

ns, not significant.

Students without clinical experience scored themselves on the basis of their own opinions of the spirituality theme acquired through classes and literature. From the interviews it also became clear that students tended to give themselves scores regarding spiritual care on the basis of their own methods of dealing with spiritual experiences and issues in their personal lives.

Conclusion and discussion

This study was a first step in the development of a valid and reliable instrument (SCCS) for the assessment of nursing competencies in spiritual care. The instrument consists of six subscales and in line with this study's research questions, we can conclude that these subscales of the SCCS show a strong construct validity and internal consistency. The test–retest procedure demonstrated a significant difference between test at baseline and retest for the 'professionalisation and improving the quality of spiritual care' subscale. However, the importance of these changes over time was trivial according to Cohen's thresholds (Cohen 1988). The SCCS is suitable for measuring nursing competencies on a group level in terms of the education or training of students and nurses in institutional teams, for instance. It can also serve as a tool for further research into nursing care competencies.

This study made a contribution to the validation of the competency profile regarding spiritual care in nursing (van Leeuwen & Cusveller 2004). The three domains (awareness and self-handling, spiritual dimensions of nursing care, assurance of quality and expertise) are still recognisable. This study also resulted in an instrument consisting of six subscales, which were recognised in the six competencies. This outcome gives the SCCS a solid theoretical foundation. Not all the key points for nursing behaviour that were described in the competency profile were confirmed in this study. This also raised questions about the content of spiritual care in nursing.

The aspect of nurses' attitudes towards patient spirituality as a component of spiritual care is regarded as an important

element in nursing competency (van Leeuwen & Cusveller 2004, Baldacchino 2006, McSherry 2006). Studies have shown that the way a nurse relates to his or her own spirituality is an important predictor of the quality of the spiritual care he or she will provide (Highfield *et al.* 2000, Meyer 2003, Wasner 2005). The interviews performed as part of the present study support this conclusion. The students' individual interpretations of the 'attitude towards patient spirituality' subscale items might well have played an important role in creating more diversity in the responses to these items. The other derived scales of the instrument pertain to the more instrumental aspects of competency (assessment, quality control and communication skills). During their education, students possibly acquired a more uniform understanding of such items, whereas those aspects based on attitude touched upon the personality of the particular nurse.

We are inclined to conclude that the students' own convictions about spirituality played an important role when answering the questions, especially where aspects of attitude were concerned. The same applies to the degree to which students already had some clinical experience with patient spirituality. The interviews show how recent, often intense experiences during internships affected how students scored themselves. This is in line with Meyer (2003), who found that clinical experience leads to a reassessment of values, especially those involved in spiritual care. This would explain why Highfield *et al.* (2000) and Wasner *et al.* (2005) included items in their assessment instruments that refer to aspects of nurses' attitudes, such as what it means for the nurses' attitudes toward care for patients with cancer or a terminal condition. Some of the students interviewed indicated that clinical experiences during internships markedly influenced their scores, resulting in seeing themselves as being less competent after the experience. This then translates as a systematic factor leading to differences in scores as students from the same year may be at different stages of their development when it comes to aspects of attitude such as these. A question might be raised concerning the

consequences these remarks might have on the attitudinal aspects of spiritual care in terms of the assessment of nurse competency. The interpretation students give to spirituality seems to be a major influencing factor. This would confirm the use of assessment instruments that assess that interpretation. Studies about the effects on nursing of education in spiritual care have used assessment instruments to assess in particular the nurses' or students' spiritual awareness and spiritual well-being (Pesut 2002, Meyer 2003, Wasner *et al.* 2005, Sandor *et al.* 2005, Loviano & Wallace 2007). Meyer (2003) even concluded that the students' personal spirituality was the strongest predictor of the perceived ability to provide spiritual care. Use of the SCCS in combination with a scale that assesses the personal interpretation of spirituality and spiritual care by students or nurses, for example, the SSCRS (McSherry 2002), should be considered. In general, the role of personal conviction in providing spiritual care needs to be explored further.

The results of this study would also indicate that students who regard spiritual care as a significant part of care delivery and health policy and those students who tend to assess and report a patient's spiritual needs and implement spiritual care in the organisation are the ones more likely to refer patients with spiritual needs to professionals with religious or spiritual expertise. These results indicate that students may see a limited role for themselves in spiritual care or that they feel ill-prepared for the provision of spiritual care. White (2006) stated that even when health-care staff, usually nursing staff, recognised spiritual concerns, many felt unable to respond personally. This was due to a variety of reasons, ranging from practical issues to lack of confidence and understanding. As a consequence nurses saw spiritual matters primarily as the task of the hospital chaplain. The author suggested that confidence and awareness needed to be strengthened through education, which is supported by many other authors (Narayanasamy 2001, Koenig 2002, McSherry 2006, Ross 2006). More discussion is needed about the role that nurses play in spiritual care, as well as the limitations of that role and its identification in relation to the task of hospital chaplains. The results of this study could be useful in multidisciplinary discussions between nurses and hospital chaplains about their roles in spiritual care delivery.

Despite the fact that the instrument has been developed on the basis of sources in nursing (literature and students), it is interesting to consider to what extent the instrument could be used in other healthcare disciplines (physicians, paramedics or social workers, for example). The literature suggests they also are involved in spiritual care and so a multidisciplinary approach towards spiritual care would

appear to be needed (Koenig 2002, McSherry 2006, White 2006).

Relevance for clinical practice

The SCCS can be used for practical, educational and research purposes to assess student and fully qualified nurse competencies in the provision of spiritual care at a group level. These assessments can provide (student) nurses, nursing managers and nursing educators with information about the areas where nurses should receive training to become competent in providing spiritual care in clinical practice. The instrument can also be used in follow-up research among nurses, before and after they have received training in spiritual care, to assess whether they have developed competencies in providing spiritual care.

Limitations

The instrument was tested on a homogeneous group of Christian nursing students. They did not represent the total population of nursing students across all secular and religious groups in Dutch society. It would be interesting to study the scores of non-Christian respondents, as we assume that need for spirituality could be manifest across the whole spectrum. Clinical and life experience may also be important predictors of scores on competency in delivering spiritual care. Such experience is generally limited among nursing students. Therefore, another topic for further research would be to determine how different experiences affect a nurse's response to certain items and how this could lead to a different calibration of the instrument. Testing of the instrument by randomising subject in different strata of professional qualifications is to be recommended. The above-mentioned limitations indicate that further research is required into the SCCS to eliminate the effects of selection, information bias and limiting factors so as to strengthen the validity and reliability obtained thus far. Another aspect that needs further investigation is the English version of the questionnaire. This needs further validation in English-speaking populations of nursing students or registered nurses to see if it matches the original Dutch version.

The formulation of some items of the 'attitude towards patient spirituality' subscale should be considered on the basis of the results of the interviews, because some of the formulations would seem to trigger socially acceptable answers. Further validation of the instrument would also require a discussion of the content and level of nursing competencies in spiritual care. This study clarifies the possibility that an instrument can be developed based on

the current literature about spiritual care in nursing. The competency profile and the assessment instrument can both be used as a point of departure in this discussion. Hospital chaplains and other religious staff should also be involved in the discussion because of their expertise and because there is a need to define the role of nurses in relation to the role of specialist religious personnel.

Contributions

Study design: RvL, LJT, HJ, DP; data collection and analysis: RvL, LJT, BM and manuscript preparation: RvL, LJT, BM, HJ, DP.

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Appendix

the extent to which you agree or disagree with each statement.

Spiritual Care Competency Scale

For each item please estimate your own level of competency by circling an answer which best reflects

Assessment and implementation of spiritual care

1) I can report orally and/or in writing on a patient's spiritual needs	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
2) I can tailor care to a patient's spiritual needs/problems in consultation with the patient	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
3) I can tailor care to a patient's spiritual needs/problems through multidisciplinary consultation	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
4) I can record the nursing component of a patient's spiritual care in the nursing plan	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
5) I can report in writing on a patient's spiritual functioning	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
6) I can report orally on a patient's spiritual functioning	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					

Professionalisation and improving the quality of spiritual care

7) Within the nursing ward, I can contribute to quality assurance in the area of spiritual care	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
8) Within the nursing ward, I can contribute to professional development in the area of spiritual care	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
9) Within the nursing ward, I can identify problems relating to spiritual care in peer discussion sessions	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
10) I can coach other care workers in the area of spiritual care delivery to patients	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
11) I can make policy recommendations on aspects of spiritual care to the management of the nursing ward	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					
12) I can implement a spiritual care improvement project in the nursing ward	1	2	3	4	5
completely disagree disagree neither agree or disagree agree fully agree					

Personal support and patient counseling

13) I can provide a patient with spiritual care				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
14) I can evaluate the spiritual care that I have provided in consultation with the patient and in the disciplinary/multidisciplinary team				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
15) I can give a patient information about spiritual facilities within the care institution (including spiritual care, meditation centre, religious services)				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
16) I can help a patient continue his or her daily spiritual practices (including providing opportunities for rituals, prayer, meditation, reading the Bible/Koran, listening to music)				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
17) I can attend to a patient's spirituality during the daily care (e.g. physical care)				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
18) I can refer members of a patient's family to a spiritual advisor/pastor, etc. if they ask me and/or if they express spiritual needs				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree

Referral

19) I can effectively assign care for a patient's spiritual needs to another care provider/care worker/care discipline				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
20) At the request of a patient with spiritual needs, I can in a timely and effective manner refer him or her to another care worker (e.g. a chaplain/the patient's own priest/imam)				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
21) I know when I should consult a spiritual advisor concerning a patient's spiritual care				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree

Attitude towards patient spirituality

22) I show unprejudiced respect for a patient's spiritual/religious beliefs regardless of his or her spiritual/religious background				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
23) I am open to a patient's spiritual/religious beliefs, even if they differ from my own				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
24) I do not try to impose my own spiritual/religious beliefs on a patient				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
25) I am aware of my personal limitations when dealing with a patient's spiritual/religious beliefs				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree

Communication

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26) I can listen actively to a patient's 'life story' in relation to his or her illness/handicap				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
27) I have an accepting attitude in my dealings with a patient (concerned, sympathetic, inspiring trust and confidence, empathetic, genuine, sensitive, sincere and personal)				
1	2	3	4	5
completely disagree	disagree	neither agree or disagree	agree	fully agree
<hr/>				